p#25

RAW SEQUENCE LISTING DATE: 05/01/2003
PATENT APPLICATION: US/09/350,401A TIME: 13:31:38

Input Set : A:\Sequence Listing 2060_0060008.txt
Output Set: N:\CRF4\05012003\I350401A.raw

<110> APPLICANT: Alessandro Sette
John Sidney
Scott Southwood
Maria A. Vitiello
Brian D. Livingston
Esteban Celis
Ralph T. Kubo
Howard M. Grey
Robert Chesnut
<120> TITLE OF INVENTION: INDUCING CELLULAR IMMUNE RESPONSES TO HEPATITIS B VIRUS USING PEPTIDE AND NUCLEIC ACID COMPOSITIONS
<130> FILE REFERENCE: 2060.0060008
<140> CURRENT APPLICATION NUMBER: US 09/350,401A
<141> CURRENT FILING DATE: 1999-07-08
<150> PRIOR APPLICATION NUMBER: US 09/189,702
<151> PRIOR FILING DATE: 1998-11-10
<150> PRIOR APPLICATION NUMBER: US 08/205,713
<151> PRIOR FILING DATE: 1994-03-04
<150> PRIOR APPLICATION NUMBER: US 08/159,184
<151> PRIOR FILING DATE: 1993-11-29
<150> PRIOR APPLICATION NUMBER: US 08/073,205
<151> PRIOR FILING DATE: 1993-06-04
<150> PRIOR APPLICATION NUMBER: US 08/027,146
<151> PRIOR FILING DATE: 1993-03-05
<160> NUMBER OF SEQ ID NOS: 3879
<170> SOFTWARE: FastSEQ for Windows Version 4.0
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<212> TYPE: PRT
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: Artificially Synthesized Peptide
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<212> TYPE: PRT
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
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<400> SEQUENCE: 2

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RAW SEQUENCE LISTING DATE: 05/01/2003
PATENT APPLICATION: US/09/350,401A TIME: 13:31:38

Input Set : A:\Sequence Listing 2060_0060008.txt
Output Set: N:\CRF4\05012003\I350401A.raw

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66 Ala Leu Arg Gln Ala Ile Leu Cys Trp
67  1               5
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71 <211> LENGTH: 9
72 <212> TYPE: PRT
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75 <220> FEATURE:
76 <223> OTHER INFORMATION: Artificially Synthesized Peptide
78 <400> SEQUENCE: 3
79 Ala Met Gln Trp Asn Ser Thr Thr Phe
80  1               5
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84 <211> LENGTH: 8
85 <212> TYPE: PRT
86 <213> ORGANISM: Artificial Sequence
88 <220> FEATURE:
89 <223> OTHER INFORMATION: Artificially Synthesized Peptide
91 <400> SEQUENCE: 4
92 Ala Ser Phe Cys Gly Ser Pro Tyr
93  1               5
96 <210> SEQ ID NO: 5
97 <211> LENGTH: 10
98 <212> TYPE: PRT
99 <213> ORGANISM: Artificial Sequence
101 <220> FEATURE:
102 <223> OTHER INFORMATION: Artificially Synthesized Peptide
104 <400> SEQUENCE: 5
105 Ala Ser Phe Cys Gly Ser Pro Tyr Ser Trp
106  1               5                  10
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110 <211> LENGTH: 8
111 <212> TYPE: PRT
112 <213> ORGANISM: Artificial Sequence
114 <220> FEATURE:
115 <223> OTHER INFORMATION: Artificially Synthesized Peptide
117 <400> SEQUENCE: 6
118 Ala Ser Lys Leu Cys Leu Gly Trp
119  1               5
121 <210> SEQ ID NO: 7
122 <211> LENGTH: 10
123 <212> TYPE: PRT
124 <213> ORGANISM: Artificial Sequence
126 <220> FEATURE:
127 <223> OTHER INFORMATION: Artificially Synthesized Peptide
129 <400> SEQUENCE: 7
130 Ala Ser Lys Leu Cys Leu Gly Trp Leu Trp
131  1               5                  10
134 <210> SEQ ID NO: 8
135 <211> LENGTH: 8
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RAW SEQUENCE LISTING DATE: 05/01/2003
PATENT APPLICATION: US/09/350,401A TIME: 13:31:38

Input Set : A:\Sequence Listing 2060_0060008.txt
Output Set: N:\CRF4\05012003\I350401A.raw

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136 <212> TYPE: PRT
137 <213> ORGANISM: Artificial Sequence
139 <220> FEATURE:
140 <223> OTHER INFORMATION: Artificially Synthesized Peptide
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147 <211> LENGTH: 8
148 <212> TYPE: PRT
149 <213> ORGANISM: Artificial Sequence
151 <220> FEATURE:
152 <223> OTHER INFORMATION: Artificially Synthesized Peptide
154 <400> SEQUENCE: 9
155 Cys Ile Pro Ile Pro Ser Ser Trp
156  1               5
159 <210> SEQ ID NO: 10
160 <211> LENGTH: 10
161 <212> TYPE: PRT
162 <213> ORGANISM: Artificial Sequence
164 <220> FEATURE:
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167 <400> SEQUENCE: 10
168 Cys Ile Pro Ile Pro Ser Ser Trp Ala Phe
169  1               5                  10
172 <210> SEQ ID NO: 11
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174 <212> TYPE: PRT
175 <213> ORGANISM: Artificial Sequence
177 <220> FEATURE:
178 <223> OTHER INFORMATION: Artificially Synthesized Peptide
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181 Cys Leu Ile Phe Leu Leu Val Leu Leu Asp Tyr
182  1               5                  10
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187 <212> TYPE: PRT
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191 <223> OTHER INFORMATION: Artificially Synthesized Peptide
193 <400> SEQUENCE: 12
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195  1               5
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200 <212> TYPE: PRT
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203 <220> FEATURE:
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RAW SEQUENCE LISTING DATE: 05/01/2003
PATENT APPLICATION: US/09/350,401A TIME: 13:31:39

Input Set : A:\Sequence Listing 2060_0060008.txt
Output Set: N:\CRF4\05012003\I350401A.raw

206 <400> SEQUENCE: 13
207 Cys Leu Arg Arg Phe Ile Ile Phe Leu Phe
208 1 5 10
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212 <211> LENGTH: 8
213 <212> TYPE: PRT
214 <213> ORGANISM: Artificial Sequence
216 <220> FEATURE:
217 <223> OTHER INFORMATION: Artificially Synthesized Peptide
219 <400> SEQUENCE: 14
220 Cys Ser Val Val Arg Arg Ala Phe
221 1 5
224 <210> SEQ ID NO: 15
225 <211> LENGTH: 10
226 <212> TYPE: PRT
227 <213> ORGANISM: Artificial Sequence
229 <220> FEATURE:
230 <223> OTHER INFORMATION: Artificially Synthesized Peptide
232 <400> SEQUENCE: 15
233 Cys Thr Cys Ile Pro Ile Pro Ser Ser Trp
234 1 5 10
237 <210> SEQ ID NO: 16
238 <211> LENGTH: 8
239 <212> TYPE: PRT
240 <213> ORGANISM: Artificial Sequence
242 <220> FEATURE:
243 <223> OTHER INFORMATION: Artificially Synthesized Peptide
245 <400> SEQUENCE: 16
246 Asp Ile Asp Pro Tyr Lys Glu Phe
247 1 5
250 <210> SEQ ID NO: 17
251 <211> LENGTH: 10
252 <212> TYPE: PRT
253 <213> ORGANISM: Artificial Sequence
255 <220> FEATURE:
256 <223> OTHER INFORMATION: Artificially Synthesized Peptide
258 <400> SEQUENCE: 17
259 Asp Leu Leu Asp Thr Ala Ser Ala Leu Tyr
260 1 5 10
263 <210> SEQ ID NO: 18
264 <211> LENGTH: 9
265 <212> TYPE: PRT
266 <213> ORGANISM: Artificial Sequence
268 <220> FEATURE:
269 <223> OTHER INFORMATION: Artificially Synthesized Peptide
271 <400> SEQUENCE: 18
272 Asp Ser Trp Trp Thr Ser Leu Asn Phe
273 1 5
276 <210> SEQ ID NO: 19

RAW SEQUENCE LISTING DATE: 05/01/2003
PATENT APPLICATION: US/09/350,401A TIME: 13:31:39

Input Set : A:\Sequence Listing 2060_0060008.txt
Output Set: N:\CRF4\05012003\I350401A.raw

277 <211> LENGTH: 10
278 <212> TYPE: PRT
279 <213> ORGANISM: Artificial Sequence
281 <220> FEATURE:
282 <223> OTHER INFORMATION: Artificially Synthesized Peptide
284 <400> SEQUENCE: 19
285 Glu Leu Leu Ser Phe Leu Pro Ser Asp Phe
286 1 5 10
289 <210> SEQ ID NO: 20
290 <211> LENGTH: 11
291 <212> TYPE: PRT
292 <213> ORGANISM: Artificial Sequence
294 <220> FEATURE:
295 <223> OTHER INFORMATION: Artificially Synthesized Peptide
297 <400> SEQUENCE: 20
298 Glu Leu Leu Ser Phe Leu Pro Ser Asp Phe Phe
299 1 5 10
302 <210> SEQ ID NO: 21
303 <211> LENGTH: 8
304 <212> TYPE: PRT
305 <213> ORGANISM: Artificial Sequence
307 <220> FEATURE:
308 <223> OTHER INFORMATION: Artificially Synthesized Peptide
310 <400> SEQUENCE: 21
311 Glu Ser Arg Leu Val Val Asp Phe
312 1 5
315 <210> SEQ ID NO: 22
316 <211> LENGTH: 11
317 <212> TYPE: PRT
318 <213> ORGANISM: Artificial Sequence
320 <220> FEATURE:
321 <223> OTHER INFORMATION: Artificially Synthesized Peptide
323 <400> SEQUENCE: 22
324 Glu Ser Arg Leu Val Val Asp Phe Ser Gln Phe
325 1 5 10
328 <210> SEQ ID NO: 23
329 <211> LENGTH: 9
330 <212> TYPE: PRT
331 <213> ORGANISM: Artificial Sequence
333 <220> FEATURE:
334 <223> OTHER INFORMATION: Artificially Synthesized Peptide
336 <400> SEQUENCE: 23
337 Phe Ile Leu Leu Leu Cys Leu Ile Phe
338 1 5
341 <210> SEQ ID NO: 24
342 <211> LENGTH: 11
343 <212> TYPE: PRT
344 <213> ORGANISM: Artificial Sequence
346 <220> FEATURE:

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 05/01/2003
PATENT APPLICATION: US/09/350,401A TIME: 13:31:40

Input Set : A:\Sequence Listing 2060_0060008.txt
Output Set: N:\CRF4\05012003\I350401A.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3274; Xaa Pos. 4
Seq#:3275; Xaa Pos. 4
Seq#:3314; Xaa Pos. 5
Seq#:3315; Xaa Pos. 4
Seq#:3316; Xaa Pos. 3
Seq#:3317; Xaa Pos. 8
Seq#:3318; Xaa Pos. 8
Seq#:3319; Xaa Pos. 3
Seq#:3320; Xaa Pos. 4
Seq#:3321; Xaa Pos. 6
Seq#:3322; Xaa Pos. 6
Seq#:3323; Xaa Pos. 5
Seq#:3324; Xaa Pos. 4
Seq#:3325; Xaa Pos. 7
Seq#:3326; Xaa Pos. 9
Seq#:3327; Xaa Pos. 4
Seq#:3328; Xaa Pos. 5
Seq#:3329; Xaa Pos. 6
Seq#:3330; Xaa Pos. 3
Seq#:3331; Xaa Pos. 4
Seq#:3381; Xaa Pos. 5
Seq#:3382; Xaa Pos. 6
Seq#:3416; Xaa Pos. 10
Seq#:3417; Xaa Pos. 10
Seq#:3418; Xaa Pos. 17
Seq#:3419; Xaa Pos. 16
Seq#:3420; Xaa Pos. 15
Seq#:3421; Xaa Pos. 14
Seq#:3422; Xaa Pos. 13
Seq#:3423; Xaa Pos. 12
Seq#:3424; Xaa Pos. 11
Seq#:3425; Xaa Pos. 10
Seq#:3426; Xaa Pos. 9
Seq#:3427; Xaa Pos. 8
Seq#:3428; Xaa Pos. 9
Seq#:3429; Xaa Pos. 8
Seq#:3430; Xaa Pos. 7
Seq#:3431; Xaa Pos. 10
Seq#:3432; Xaa Pos. 10
Seq#:3433; Xaa Pos. 11
Seq#:3877; Xaa Pos. 3
Seq#:3878; Xaa Pos. 1,5,6,8,9
Seq#:3879; Xaa Pos. 1,3,5,6,7

VERIFICATION SUMMARY DATE: 05/01/2003
PATENT APPLICATION: US/09/350,401A TIME: 13:31:40

Input Set : A:\Sequence Listing 2060_0060008.txt
Output Set: N:\CRF4\05012003\I350401A.raw

L:15593 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (1197) SEQUENCE:
L:42597 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3274 after pos.:0
L:42615 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3275 after pos.:0
L:43127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3314 after pos.:0
L:43145 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3315 after pos.:0
L:43163 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3316 after pos.:0
L:43181 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3317 after pos.:0
L:43199 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3318 after pos.:0
L:43217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3319 after pos.:0
L:43235 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3320 after pos.:0
L:43253 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3321 after pos.:0
L:43271 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3322 after pos.:0
L:43289 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3323 after pos.:0
L:43307 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3324 after pos.:0
L:43325 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3325 after pos.:0
L:43343 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3326 after pos.:0
L:43361 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3327 after pos.:0
L:43379 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3328 after pos.:0
L:43397 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3329 after pos.:0
L:43415 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3330 after pos.:0
L:43433 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3331 after pos.:0
L:44088 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3381 after pos.:0
L:44106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3382 after pos.:0
L:44553 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3416 after pos.:0
L:44571 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3417 after pos.:0
L:44591 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3418 after pos.:16
L:44609 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3419 after pos.:0
L:44627 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3420 after pos.:0
L:44645 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3421 after pos.:0
L:44663 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3422 after pos.:0
L:44681 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3423 after pos.:0
L:44699 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3424 after pos.:0
L:44717 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3425 after pos.:0
L:44736 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3426 after pos.:0
L:44754 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3427 after pos.:0
L:44772 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3428 after pos.:0
L:44790 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3429 after pos.:0
L:44808 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3430 after pos.:0
L:44826 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3431 after pos.:0
L:44844 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3432 after pos.:0
L:44862 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3433 after pos.:0
L:50662 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3877 after pos.:0
L:50700 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3878 after pos.:0
L:50732 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3879 after pos.:0